

## Windows to Wildlife



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Photo above: Sage grouse. Photo by Terry Thomas

# LEWIS AND CLARK: Natural Historians in the Central Rocky Mountains

by Beth Waterbury, IDFG Salmon Region Nongame Biologist

For nearly 200 years, the epic journey of the Corps of Discovery has fascinated the historian and scientist in each of us. The long time dream of President Thomas Jefferson, the journey's mission was to explore the Missouri River and determine whether its waters offered "course & communication with the waters of the Pacific Ocean.....for the purposes of commerce...." But Jefferson, an accomplished scientist in his own right, also envisioned that the expedition would yield scientific riches in the fields of zoology, botany, ethnology, meteorology, geography, and cartography. Jefferson's vision proved accurate, however, early published accounts of the expedition focused on Lewis and Clark's talents as explorers, woodsmen, and military captains, neglecting their important discoveries of plants and animals previously unknown to science. Fortunately, scholars and historians of the 19th and 20th centuries, such as Elliott Coues, Raymond Darwin Burroughs, and Paul Russell Cutright, brought to light Lewis and Clark's extraordinary contributions to science as "pioneering naturalists."

The Lewis and Clark Expedition logged some 8,000 miles and 178 plants and 122 animals new to science. This article could not do justice to so many species, so instead will focus on the birds and mammals the captains first described in their westward trek over the Central Rocky Mountains of present day Montana and Idaho in the summer of 1805. This leg of the journey marked the milestone transition from the Mississippi to the Columbia watershed and introduced the explorers to many new plant and animal species.

On July 19, 1805, near present day Helena, Montana, the Corps of Discovery ascended the ever-steepening gradient of the Missouri River through spectacular 1,200-foot cliffs which Lewis named the Gates of the Rocky Mountains. It was here that Lewis first observed "a black woodpecker (or crow)....it is a distinct species of woodpecker; it has a long tail and flys a good deal like the jay bird." This bird is known today as Lewis's woodpecker. Upon collecting specimens, Lewis described the peculiar coloration of this bird as "...black, with a glossey tint of green in a certain exposure to the light...the belly and breast is a curious mixture of white and blood red which has much the appearance of

#### **LEWIS & CLARK**

having been artificially painted or stained of that colour." Lewis's woodpecker inhabits open ponderosa pine forest, open riparian woodland dominated by cottonwood, and logged or burned pine forest. They feed primarily on insects, which they often "flycatch" from a prominent perch but also forage on seasonally abundant fruits and nuts. Lewis' woodpecker is of high conservation importance in both Idaho and Montana due to its relatively small patchy distribution, low overall density, and association with mature montane and riparian forests.



Ruffed grouse

On August 1, 1805, while skirting the beaver-dammed bottomlands near present day Three Forks, Montana, Lewis discovered "a flock of black or dark brown pheasants" eventually described as Richardson's blue grouse (known today as the Dusky [Interior] subspecies of blue grouse). Lewis noted these birds to be "fully a third larger than the common phesant [ruffed grouse] of the Atlantic states." Lewis added, in true frontiersman style, "The flesh of this bird is white and agreeably flavored." The Corps would make several references to the "black pheasant" on their harrowing trek through the Bitterroots to the Clearwater River. Blue grouse currently inhabit open montane coniferous forests throughout the Rocky Mountains from the Northwest Territories to New Mexico. In the Central Rockies, the male's low, pulsating hoots can be heard during the breeding season in spring. In late summer and fall, adult birds with broods can readily be seen along forest roads and trails.

## Upper Salmon Basin Natural History Lecture Series



Programs will celebrate wildlife of the Upper Salmon Basin. Topics will include bats, hummingbirds, pygmy rabbits, reptiles & amphibians, and birds & mammals discovered by Lewis & Clark in their journey across the Central Rocky Mountains. For a schedule and program specifics, contact Beth Waterbury, Idaho Department of Fish and Game, Salmon Region 208/756-2271.

Also on August 1st, Lewis offered the first scientific description of the pinyon jay, a dusty blue, sociable member of the crow family inhabiting pinyon/juniper woodlands, pine forests, and sagebrush. Lewis first observed the bird "...near the top of the mountain among some scattering pine..." Lewis's observation captured the northernmost range of this bird, which more typically occurs in pinyon/juniper habitats in the Southern Rocky Mountains.

The scientific discovery of the Greater sage-grouse is credited to

Lewis and Clark, who first encountered the large "mountain cock" about two months earlier in central Montana. On his approach to the crest of the Continental Divide on August 12, 1805, Lewis "saw several of the heath cock with a long pointed tail" and in his journal entries noted that the bird was found "...in the plains of the Columbia...in great abundance..." Greater sage-grouse still inhabit the Beaverhead Mountains where Lewis observed them nearly 200 years ago, but at substantially lower numbers from historic levels. Range-wide, their distribution has declined by an average of 50 percent since Euro-American settlement. Breeding populations have declined by 33 percent. Unfortunately, much of the sagebrush steppe habitat on which sage-grouse depend has been fragmented, altered, or permanently lost due to wildfire, farming, livestock grazing, suburban development, and invasive plant species.

On August 15, 1805, Lewis and a scouting party of three men crossed the Continental Divide at present day Lemhi Pass east of the town of Tendoy, Idaho. They were seeking the Shoshone Indians from whom they hoped to procure horses for what the captains thought was a final portage over the Divide to a navigable tributary of the Columbia. Upon making contact with the Shoshones, Lewis and his men were offered a meal of salmon, pronghorn, and dried cakes of chokecherry and serviceberry. Lewis recorded in his journal, "This was the first salmon I had seen, and perfectly convinced me that we were on the waters of the Pacific Ocean." His statement was indeed correct though the tributary he wrote of (the present day Lemhi River) was still some 850 river miles from the Pacific. The species of salmon Lewis referred to was the chinook salmon. Fisheries scientists would eventually recognize the Lemhi run as part of a larger distinct group of chinook salmon named Snake River spring/summer chinook, in reference to the season in which these largest of salmon enter freshwater to begin their spawning migration. Prior to Euro-American settlement, the chinook run in the Lemhi River was estimated at 5,000 to 10,000 fish. Today, Snake River spring/ summer chinook salmon have greatly declined from historic numbers and are currently listed as threatened under the federal Endangered Species Act.

To be continued in the next newsletter, or check out the August edition of the Fish and Game online magazine at www2.state.id.us/fishgame

#### **WOLVERINES**

## **Panhandle Wolverine Surveys**

by Dorothy Bowers, IDFG Panhandle Region Nongame Biologist

In early 2001, the Idaho Department of Fish and Game Panhandle Region initiated a cooperative project with the Bureau of Land Management to survey for wolverines between the I-90 corridor and the St. Joe River. The project was developed in an effort to assess the effect of recreation and BLM land management strategies on wolverine use of the study area, specifically on potential denning habit. This 3-year project included conducting track surveys along transects and at bait stations, mapping potential denning habitat, using remote cameras to document species presence at bait stations and trap sites, and deploying 5 live traps with the intent of installing a radio or GPS collar on captured wolverine.

Surveys were conducted during the winter each year. During the first field season (early 2001), staff documented wolverine sign at two locations while conducting track surveys. Additionally, fisher and pine marten tracks were observed at many locations. Two remote cameras were placed in the field, however no wolverines were photographed in 2001.

During the second and third field seasons, staff deployed remote cameras at over 15 sites

and live traps at 4-5 sites each season. In April 2002 a fisher was caught in one live trap and

capture subsequently radio-collared and released. This fisher was relocated at two sites and photographed at one camera site; the furthest relocation was approximately 5 miles from the capture site.



This wolverine is one of many species captured on film visiting the bait.

In 2003, during the last month of the project, a fresh wolverine track was observed in the study area. The following day, the field crew checked one remote camera located approximately 10 air miles from the track site and found the bait missing. They replaced the bait but left the film as only a few frames had been exposed. When the film was later retrieved and developed, four photographs of a wolverine were revealed; the wolverine was photographed both *before* and *after* they replaced the bait.

In addition to the wolverine photographs, numerous other species were documented. Some of the best shots include a red fox (climbing a tree!), a gray wolf, pine marten, golden eagles, short-tailed weasel, bobcats, and fisher. Idaho Department of Fish and Game is currently in the process of developing a poster out of these photographs...look for it in the near future!

## **Upper Snake Region Wolverine Work**

by Lauri Hanauska-Brown, IDFG Upper Snake Nongame Biologist



Large teeth of tranquilized wolverine during examination. By Lauri Hanauska-Brown, IDFG

On March 18, 2003, a 27 lb. 4 year old male wolverine was trapped in southeast Idaho. Through the snow and the wind of that afternoon a very capable crew of biologists and veterinarians from Wildlife Conservation Service tranquilized the animal and conducted a brief physical assessment. The wolverine was 'implanted' with an abdominal telemetry device about the size of two C batteries. The wolverine was also fitted with a GPS (geographic positioning system) collar programmed to collect location data every three hours over a six month period. Imagine our excitement at obtaining movement data of such an elusive species within our state!

Unfortunately, bad news was soon to follow all of this excitement. This individual was the wolverine that made national news and radio after being killed by a bear sometime in mid April in Montana. At this time, the details of this animals demise and it's movements up to that point are still under investigation. We do know that the wolverine had been alive and moving throughout portions of Idaho and Montana up to it's untimely death. We also know remains of an elk carcass were very near the body of the wolverine. Tracks and scat in the area along with puncture wounds on the wolverine indicate a bear/wolverine fight. A necropsy of the wolverine

carcass documented an empty stomach, leading us to speculate this very hungry male wolverine took on a little more than he could handle when he encountered a bear at the dinner table!!

While I wish this was better news to report, I would like to congratulate the Wildlife Conservation Society on another successful field season. Your professionalism, dedication, and cooperation are greatly appreciated. Keep up the good work and Thanks!

To order the book <u>Lewis and Clark's Mountain Wilds: A Site Guide to the Plants and Animals They Encountered in the Bitterroots</u>, it is listed on amazon.com, or you can order it from the University of Idaho Press at http://www.uidaho.edu/uipress/ (1-800-847-7377). The book is also found in many local and chain bookstores. Happy Reading.

#### **GROUND SQUIRRELS**

### **Idaho's Ground Squirrels**

Many people cruising the back roads and Interstate 84 in the spring see an abundance of ground squirrels scurrying about the landscape. In most cases, these are Paiute ground squirrels, an unprotected and relatively abundant species. There are other species of ground squirrel in Idaho, and distinguishing the species and their protection status can be difficult. To help guide you in identifying Idaho's ground squirrels, look for a copy of the guide Ground-Dwelling Squirrels of the Pacific Northwest. This guide includes details about each species, drawings, and maps.

They are due out this summer and can be found through the BLM, Fish and Wildlife Service, and Idaho Department of Fish and Game.

North of the Payette River, there are three ground squirrel species, the Columbian, southern Idaho, and northern Idaho ground squirrels. The Columbian ground squirrel is the largest of the three (15-17 inches head to tail) and have large ears, a rusty red belly, and dark brown back. The southern Idaho ground squirrel is smaller, has small ears, and colored with a cream belly and light gray-brown back. Northern Idaho ground squirrels are similar to the southerns, but are colored with a reddish brown back and cream belly. It is very important to distinguish these species because the southern and northern Idaho ground squirrels are protected species. They are only found in Idaho, and their populations have been declining.

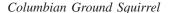
Southern Idaho ground squirrels (SIDGS) used to be familiar sights from Emmett west to Weiser and from the Payette River north to Indian Valley. They are adapted to arid country by feeding heavily and having one litter of six to nine pups during a very brief period of activity in the spring from February to July. After eight months of hibernation, adult squirrels weigh only about 100 grams. In a good environment with plenty of high-quality food, their body weight triples by June.

The species is difficult to study because the animals don't come out in bad weather, and spend about eight months a year underground. Males emerge in January or early February, as soon as vegetation greens up and snow melts. Females follow a week or two later. Generally, females breed the day they emerge

from hibernation. Pups are born after three and a half weeks of gestation and are weaned three and a half weeks later.

Over the past 20 years, SIDGS populations north of the Payette River have dwindled. In the 1980s, their population was estimated at 40,000 animals. Today, we believe less than 5,000 remain in their range of roughly 800 square miles in Gem,

Washington and





Northern Idaho Ground Squirrel

Payette counties. The main problem appears to be wide-spread habitat alteration. Some of the land was converted to agriculture but much has been altered by repeated fires and the invasion of exotic annuals like cheatgrass. The loss of native bunchgrasses means that squirrels have an unreliable food source and repeated fires have essentially eliminated the seed stocks of native plants that formerly resprouted after fire events. Diseases may have also impacted the ground squirrel population.

Having found about 300 sites where southern Idaho ground squirrels exist or have existed, researchers are trying to determine what plants the squirrels are using now and what plants are missing that once would have been their choices. When their eating habits are known, efforts will be started to restore appropriate vegetation on many acres of BLM land.

To help understand SIDGS and the potential of captive rearing, seventeen female and seven male ground squirrels were trapped and removed from areas where the squirrels conflict with human interests, creating financial and landscaping headaches in May, 2002. These individuals were then re-located to their new home at Zoo Boise. Thanks to some good coordination by various agencies (IDFG, BLM, FWS), an excellent crew of BSU graduate students and IDFG Biotechnicians and Zoo Boise's staff the time had come to see the success of the captive population. On May 14, 2003, all but two animals were trapped out of the enclosure. After measuring and marking the animals, the first set of about 28 SIDGS were transported to BLM lands west of Bissel Creek. The rest were returned to the Zoo Boise ground squirrel exhibit. The translocation site has a small local population of SIDGS with good native vegetation components in place, conditions of the release site selection.

As a Species of Special Concern, the southern Idaho ground squirrel is protected by state law and may not be shot, trapped, poisoned, or harassed. The northern Idaho ground squirrel, found in Adams and Valley counties, is Idaho's newest Threatened Species. With a population of perhaps only 500 animals, it is protected by both federal and state laws.

Caution must be taken if hunting ground squirrels north of the Payette River, where one unprotected squirrel species (the Columbian ground squirrel) shares the area

with the two protected species, southern and northern Idaho ground squirrels. So if you plan to hunt squirrels, the best advice is to stay south of the Payette River (in Paiute ground squirrel country) and avoid the guesswork.

For additional information on southern Idaho ground squirrels, view the Idaho Fish and Game Online Magazine. Look for the link at www.state.id.us/fishgame.



Southern Idaho Ground Squirrel

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### **The Salmon Story**

by Shelley Cooke, Idaho Dept of Fish and Game

Along side a creek, I see with my eyes, a fish of great strength, beauty, and size.

"I am a salmon!" this fish says to me "An amazing story I have, just listen, you'll see...

High in the hills, in a small mountain creek, I hatch from an egg and am tiny and weak.

This first stage in life, they call me a "fry", I hide in the gravel, as bigger fish pass me by.

I grow larger each day, and soon I'm a "parr", but I'm still not that big, that I venture too far.

I live in this stream for close to a year, all through the winter, until springtime is near.

I know I'm a "smolt" when my body's in motion, and all I can think of is reaching the ocean.

It's sure to be fun and a quick trip it will be, I'll just ride the high water from river to sea.

Help! What happened? This must be a mistake! For what once was a river, now is a lake!

I swim and I struggle, and make it I do, but I know I am lucky, for survivors are few.

Several more dams, it sure won't be easy, and thoughts of returning are making me queasy!

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Finally, the ocean! I make it, I'm here! But fear is inside me, as predators are near.

I practice the basics, to swim and to dive. I've got to be quick, if I want to survive!

I have a long journey, this much I know. To Alaska and back, thousands of miles to go.

As I swim through the ocean, I grow big and strong.

I join other salmon, to a school I belong.

After two years at sea, it's time to start back. If only one year I'd spent, I'd be known as a "jack".

Now a decision, which river to choose. I'd better be right, for there's no time to lose!

Believe it or not, each stream has a smell. My stream from yours, I'd be able to tell.

I fight my way back through rapids and falls, there is no holding me back, mother nature has called.

Weeks will go by and far I will seek, until finally I find, my special birth creek.

Here I will stay and search for a mate. I will spawn and then die, for this is my fate.

But don't you be sad for my hardship and strife, for this is all part of the great circle of life!

That's the story of the salmon, and I swear it's all true... Now, go share it with others, for our fate lies with you!"

recycled (\*\*



paper

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